

TO: Portland Harbor Manager Group

FROM: Kristine Koch, Carl Stivers, Laura Jones, Dawn Sanders, Linda Scheffler, Andy Koulermos and Karen Tarnow

DATE: December 20, 2006

RE: Feedback from Tech Team on Remaining Methodology Questions and the List of Sampling Sites

The Tech Team met on December 18 to discuss the issues described below.

Sampling Methodology

The Managers asked the Tech Team to get input from the Risk Assessors on the following questions:

Should the sampling methodology initially proposed by the Tech Team be expanded to include analysis of filtered as well as total water samples in order to obtain data on dissolved contaminants?

Should phthalates be included in the analysis of water samples?

After checking with EPA, DEQ and LWG Risk Assessors, we recommend the following:

1. Collect stormwater grab samples from 5 - 10 sites where it is most likely that organics would be detected in water samples and analyze the samples for total and dissolved organic constituents. The modelers will use this information to validate the partitioning algorithms used in the models.
2. Add dissolved metals to the analyte list for water samples to ensure we have the data necessary to evaluate risk, should that be necessary. This data is needed at each site because metals partitioning can be site specific and cannot be reliably predicted or modeled.
3. Do not analyze water samples for phthalates except at sites where data is available to indicate that the site could be a potentially significant source of phthalates. This will be determined through further consultation with the Risk Assessors.

List of Sampling Sites

The Tech Team discussed making the following changes to Eric's list of sampling sites. The rationale for these changes is provided below. While the majority of the group supports this proposal, the City has some reservations, as described below.

1. Move the sampling site in the M-1 basin from Freightliner to the "end" of the outfall (see below for the significance of the quotes).

2. Move the sampling site in the OF-17 basin from GE Decommissioning to the end of the outfall. *[See below for the City's concerns about this change.]*
3. Remove BP Arco from the list.
4. Add OF-19 to the list.

These changes do not result in a change to the total number of sample sites. The changes reduce the total number of High Priority sites by two, and reduce the number of Heavy Industrial land use sites by one.

By collecting end-of-the-outfall data from three additional outfalls (M-1, OF-17 and OF-19), we will have a data set that better supports DQOs #1 and #2 (i.e., we will have actual outfall data from these basins rather than needing to rely on extrapolated estimates). And because these changes only reduce the number of land use sites by one, it does not significantly reduce the data we can use to generate land use-based pollutant loading rates from representative sites in the harbor. *[See below for the City's concerns about this concept.]*

For the M-1 outfall, the City reports that it is not possible to sample at the end of the outfall because of backflow from the river. The sample site would need to be above the location where Fred Devine discharges into the conveyance. However, because Fred Devine is also on the sampling list, it will be possible to aggregate loading from both the Fred Devine site and above the site to come up with a total loading from M-1.

The team did not feel that BP ARCO needed to be on the list because land use data from OF-22, which has similar petroleum-related activities, could be extrapolated to estimate loading from this site. Furthermore, BP ARCO is planning to undertake an Early Action during 2007 and will likely need to collect stormwater loading data as part of the recontamination analysis. Kristine thought that BP ARCO would be agreeable to using the same sampling methodologies that we have been discussing.

In place of sampling BP Arco, the team felt it would be more useful to sample OF-19. OF-19 has been part of the City's MS4 Stormwater monitoring program for 10+ years. During that time, they have been collecting composite samples of three storm events per year. While this data set does not include all of the analytes on the PH COI list, there is some overlap which will allow us to assess the representativeness of our data relative to historical data at that location. The long term data set includes TSS, TDS, TOC, metals, and nutrients; the City began analyzing for SVOCs, and PCBs last year. The Tech Team agreed that being able to compare the two data sets (the City's data and the LWG data) would provide useful information for the overall stormwater evaluation. However, because the City has sampling equipment in place at this outfall, sampling at this site will only be possible if additional equipment can be installed without disturbing the City's set up.

The City's concerns about the proposed changes are as follows:

1. One of the major purposes of sampling at high priority sites is to identify significant sources not only for DQO #1 but also to help with evaluating recontamination potential. By sampling at the end of OF-17 rather than the GE Decommissioning site – a known PCB

source – we are foregoing the opportunity to understand its contribution and what loading reduction might be expected in the future to evaluate recontamination potential at OF-17.

2. By sampling basins with different land use categories (OF-17, OF-19 and M-1), we are defining another type of loading rate – one associated with a basin rather than land use – which does not correlate with the land use approach. Further discussion is needed to discuss how overall loading will be estimated to verify that it is technically valid to mix the two approaches.